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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,017

04/08/2004

Paul T. Wingett

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01/09/2006

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EXAMINER

BASINGER, SHERMAN D

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/822,017		WINGETT ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Sherman D. Basinger		3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,14,19-21,29,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 2,3,9-13,15-18,22-28,30 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/8/2004</u> . | 6) <input type="checkbox"/> Other: ____.   |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference numeral 300 of paragraph [0025] is not shown in the drawings, and especially not in figure 3 of the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 7, 12, 15, 16 and 27 are objected to because of the following informalities: in claim 7 "the UUV docking signal" has no clear antecedent; in claim 12 "the electrical port" and "the fuel cell" have no clear antecedents; in claim 15 "the charge controller" has no clear antecedent; in claim 16 "the charge controller" has no clear antecedent; and in claim 27 "the fuel cell" has no clear antecedent . Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 5, 6, 7, 8, 14, 20, 21, 29, 31 and 32 are rejected under 35

U.S.C. 102(e) as being anticipated by Huntsman 921.

Huntsman 921 discloses a charging system for an unmanned underwater vehicle 200, comprising an electrical port 402 adapted to electrically couple to an unmanned underwater vehicle UUV ;

a fluid-powered turbine 404 adapted to receive a flow of fluid and configured, upon receipt thereof, to rotate;

a generator (inherently apart of turbine 400 or it can be flywheel generators 106 A and B) coupled to the turbine and configured, upon rotation thereof, to generate electrical power; and

a controller 116, 118 inherently adapted to receive a UUV docking signal that indicates at least that the electrical port is electrically coupled to the UUV and operable, in response

thereto, to selectively electrically couple the generator to the electrical port (see column 9, lines 8-12).

With regard to claim 5, the data transfer module is the wireless technology referenced in column 9, lines 3-6 and shown in figure 5.

With regard to claim 6, the data transfer module inherently is electrically coupled to both the batteries of the bypass storage device 109 (column 6, line 54) and the electrical generating device 102.

With regard to claim 7, it is inherent that the underwater structure has as part of 116 and 118 a UUV docking control module adapted to received a signal representative of the docking status of the UUV and operable in response thereto to supply the UUV docking signal.

With regard to claim 8, the UUV docking control module of controller 116, 118 will be electrically coupled to receive power from either the batteries of storage device 109 of the generators 106A and B.

With regard to claim 14, Huntsman discloses a docking station for an unmanned underwater vehicle UUV comprising

a housing shown in figure 4;

a UUV docking port 402 disposed within the housing and configured to dock a UUV therein,

an electrical port inherently part of port 402 (column 9, lines 10-12) disposed at least partially within the UUV docking port,

the electrical port adapted to electrically couple to a docked UUV;

a battery as part of storage device 109;

a fluid-powered turbine 404 adapted to receive a flow of fluid and configured,

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upon receipt thereof, to rotate,

a generator inherently part of 404 or within 102 coupled to the turbine and configured,

upon rotation thereof, to generate electrical power; and

a controller 116, 118 inherently adapted to receive a UUV docking signal that indicates

at least that the electrical port is electrically coupled to the UUV and operable, in

response thereto, to selectively electrically couple the generator to the electrical port

(column 9, lines 10-12).

With regard to claim 20, the data transfer module is the wireless technology referenced in column 9, lines 3-6 and shown in figure 5.

With regard to claim 21, the data transfer module inherently is electrically coupled to

both the batteries of the bypass storage device 109 (column 6, line 54) and the

electrical generating device 102.

With regard to claims 29, 31 and 32, Huntsman also discloses a method of charging a power source in an unmanned underwater

vehicle UUV (see column 9, lines 10-12), comprising the steps of

electrically coupling an electrical port 402 to at least a portion of the UUV

power source;

activating an electrical generator 102;

electrically coupling the electrical generator to the electrical port, to

thereby charge the UUV power source using at least the electrical generator (see

column 9, lines 10-12);

inherently determining a docking status of the UUV through processor 116; and

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transferring data from the UUV while charging the UUV power source (column 8, lines 20-25).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huntsman 921 in view of Gorlov.

The turbine 404 of Huntsman is not disclosed as being a Gorlov turbine. Note the different turbines disclosed in Gorlov. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to make the turbine 404 of Huntsman a turbine similar to one of the Gorlov turbines. Motivation to do so is that such turbines are quiet, efficient, uniformly rotational, simple and can operate at high speeds.

***Allowable Subject Matter***

7. Claims 2, 3, 9, 10, 11, 12, 13, 15, 16, 17, 24, 25, 26, 18, 22, 23, 27, 28, 30 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. King et al is cited to show the mothership with transports UUV's and provides docking and recharging for them. Huntsman 998 is the publication of serial number 10/092784. Potter et al and Wingett et al are copending publications of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 571-272-6679. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Sherman D. Basinger  
Primary Examiner  
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